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ABSTRACT

The overall purpose of this project was to expand the vocational education curriculum to provide adults with entrepreneurial competencies which will facilitate self-employment. More specifically, the project goals were to (1) develop and implement modules of instruction in entrepreneurship for adults in self-employment and potential entrepreneurs; (2) develop a staff development program for adult educators; (3) develop and implement a communication system which will provide more visibility to occupational training for adults; and (4) coordinate realistic training experiences in entrepreneurship. (Objectives are stated in performance terms in the narrative of the project.) Twelve modules were developed which adequately cover the entire spectrum of small business ownership. Content specialists developed technical content materials for the selected entrepreneurial modules. A selection of on-site teams pilot tested the materials. Staff development activities included three seminars and a two week workshop. The project culminated with self-contained instructional modules in the identified areas of entrepreneurship and media for maximizing vocational technical education for adults. Overall evaluation results indicated that the modules were successfully developed and widely accepted among state and local adult and vocational educators. (Evaluation design summary charts are appended.) (Author/CT)

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ED164996

Evaluation Report
on
A Model for Vocational Education Program Development in Entrepreneurship

Arkansas Department of Education
Division of Vocational, Technical
and Adult Education

Prepared by

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June 7, 1978

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NATIONAL INSTITUTE OF EDUCATION

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PROJECT ABSTRACT

PROJECT NUMBER: 498AH60090 GRANT NUMBER: G007603753

PROJECT TITLE: A Model for Vocational Education Program Development in Entrepreneurship

PROJECT COORDINATOR AND ORGANIZATION: Paul Cunningham
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GRANT PERIOD: June 30, 1976 - March 31, 1978

FUNDING SOURCE: P.L. 90-576 Sec. 131A Part C Commissioner's Share

OBJECTIVES OR PURPOSES

The overall purpose of this project is to expand the vocational education curriculum to provide adults with entrepreneurial competencies which will facilitate self-employment. More specifically, the project goals are to:

1. Develop and implement modules of instruction in entrepreneurship for adults in self-employment and potential entrepreneurs.
2. Develop a staff development program for adult educators.
3. Develop and implement a communication system which will provide more visibility to occupational training for adults.
4. Coordinate realistic training experiences in entrepreneurship. Objectives are stated in performance terms in the narrative of the project.

PROCEDURES OR APPROACH

Twelve modules were developed which adequately cover the entire spectrum of small business ownership. Content specialist developed technical content materials for the selected entrepreneurial modules. A selection of on-site teams pilot tested the materials. Staff development activities included three seminars and a two week workshop. The project culminated with self-contained instructional modules in the identified areas of entrepreneurship and media for maximizing vocational technical education for adults.

EXPECTED CONTRIBUTION TO EDUCATION

The expected benefits to be derived are (1) a curriculum stressing successful techniques in entrepreneurship which is relevant and exhibits considerable transportability, (2) a cadre of adult educators to teach ownership and management competencies and (3) individuals with improved competencies in starting and managing a business enterprise. It is anticipated that the materials will be used by the 23 postsecondary vocational technical schools and many of the 321 school districts offering vocational education.

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Program Description

I. Background Information

A segment of Arkansas' adult population needs the special attention of vocational educators. This group consists of self-employed individuals who are owners or potential owners of small businesses.

Every year, approximately 500,000 new businesses are started in this country, but according to Dun and Bradstreet statistics, one-third of these new businesses fail within the first three years--many within the first year. A large percentage of these small business failures can be traced to the owner/manager's lack of managerial skills and personal qualifications to operate a business, not because the person cannot provide services or trade skills.

A great deal of time and effort is devoted to training adults and youth to be employees, but little time is given to the business and management principles of entrepreneurship. Important to the success of all small business owners or managers is the need, not only for sufficient technical knowledge in their field, but also for experience in managerial skills. These essential skills are similar in every career field, whether it be a cosmetologist desiring to be a beauty shop owner or a refrigeration technician wanting to enter private business.

This is especially significant to vocational instructors because a surprisingly large number of adults who finish vocational-technical programs in Arkansas either enter or aspire to enter into private ownership. This fact was reinforced recently by a National Business Education Association study which indicated there are three or four potential business owners in every typical American classroom. However, most of the instructional time and effort is devoted to helping students learn to be employees rather than business owners and managers.

In view of the above mentioned concerns and facts, the Research Coordination Unit of the Vocational Division in the Arkansas Department of Education submitted an application for a grant to (1) develop a series of curriculum modules stressing successful techniques of entrepreneurship for owners and potential owners, and (2) develop a communication network to make adults aware of the availability of this training as well as the overall occupational training opportunities in the state. This application was approved and a grant of $81,000 was awarded to conduct the project. The grant award period was from July 1, 1976, through December 31, 1977, but was later extended to March 31, 1978. The purpose of this report is to present the evaluation findings to show the extent that the program achieved its objectives.

II. Program Objectives

1. The project staff will demonstrate ability to identify, develop, and implement relevant curriculum in entrepreneurship as evidenced by instructional modules which complement the Mid-America Vocational Curriculum Consortium format and are acceptable to a panel of advisors. It is expected that at least (a) 12 entrepreneurial areas of instructional will be identified, (b) 80 percent of the areas identified will be developed as self-contained instructional modules, and (c) 100 percent of the developed modules will be implemented in one or more appropriate adult training classes.

2. The project staff will demonstrate ability to identify participants and conduct effective staff development activities as measured by the evaluation of the training sessions and the extent to which training objectives are achieved. It is expected that at least (a) ten pilot sites will be identified, (b) a team of two instructors will be selected from each site, (c) 75 percent of the training objectives will be achieved, and (d) 80 percent of the seminar participants will respond positively to the training activities.

3. The project staff will demonstrate ability to develop and implement effective communication techniques to make adults aware of the occupational training opportunities as evidenced by the quantity and type of media utilized and the evaluation results of the materials developed. It is expected that at least (a) three sources of dissemination will be utilized and (b) 75 percent of the materials will receive a positive rating on the evaluation critique.

4. The project staff will demonstrate ability to coordinate and implement realistic training experiences in ownership and management as evidenced by the response from appropriate individuals and the number of programs initiated. It is expected that at least (a) 80 percent of the administrators, state staff and teacher educators involved will endorse the program, (b) 70 percent of the adults enrolled will respond favorably, (c) 80 percent of the participating teachers will express a willingness to support the curriculum, and (d) 70 percent of the participating schools will make a commitment to infuse the curriculum into their system the year following the completion of the project.

III. Identification and Description of Program Variables

The program variables in the Entrepreneurship project consist of the institutional or personnel variables, the instructional variables, and the behaviors or the products to be produced. These variables for the project entitled "A Model for Vocational Education Program Development in Entrepreneurship" will be described in the sections to follow.

A. Institutional and/or Personnel Variables

The institutional and/or personnel variables in the Entrepreneurship project are the project director, teacher educators, consultants, content manual writers, curriculum unit writers, advisory council, project monitor, and the project evaluator. They will be described below.

1. Project Director. A full-time project director was employed to coordinate all of the program activities. He was a white male with a master's degree plus additional graduate hours. The project director has had nine years of experience in the field of business and three years of experience in the field of education. Since the program was administered under the direction of the Vocational Education Department, College of Education, University of Arkansas, through a subcontract, the project director was employed by the University of Arkansas.

2. Teacher Educators. Two teacher educators were consultants to the project with no cost to the program. Their function was to provide consultative assistance to the project director in developing and implementing specific procedures for achieving the project objectives. Both of the teacher educators were employees of the College of Education at the University of Arkansas. These consultants were both white male persons with doctorate degrees. One of the teacher educators was a full professor with a specialty in business while the other was an assistant professor with a specialty in business education.

3. Consultants from Mid-America Vocational Curriculum Consortium. The state of Arkansas has and is continuing to participate in the midwest consortium. There are twelve states involved in the consortium. The consortium operates a curriculum center to develop and disseminate exemplary vocational curriculum units that can be used in the schools of the participating states. The center has developed and uses a time tested, up-to-date organizational format for curriculum development. It was deemed desirable to have the curriculum materials developed in this project follow the validated format. Thus consultants from the consortium were used in assisting those who developed the curriculum units and the teaching procedures to be used in applying the units in a class. The table following shows the characteristics of the MAVCC consultants.

Table 1: THE CHARACTERISTICS OF THE MAVCC CONSULTANTS USED IN THE ENTREPRENEURSHIP PROJECT

Name	Position	Sex		Race		Education
		M	F	W	B	
Ann Benson	Executive Director, MAVCC		X	X		Doctoral Candidate
Mark Taylor	Staff Member, MAVCC	X		X		Doctoral Candidate
Regina Decker	Editor, MAVCC		X	X		B.S.

4. Content Manual Authors. Thirteen persons were employed to write a content manual for twelve different instructional units that could be used to teach adults entrepreneurship skills. Table 2 presents the characteristics of the authors.

Table 2: THE CHARACTERISTICS OF THE CONTENT MANUAL AUTHORS INVOLVED IN THE ENTREPRENEURSHIP PROJECT

Name	Position	Sex		Race		Highest Degree	Topic
		M	F	W	B		
1. Doris Cook	Professor, Accounting University of Arkansas		X	X		PhD	Financial Records Management
2. William F. Hardin Jr.	Professor, Finance University of Arkansas	X		X		PhD	Business Financing and Business Financial Planning
3. Donald R. Epley	Associate Professor, Finance University of Arkansas	X		X		PhD	Property Management (Real Estate)
4. Linda Combs	Independent Businessperson		X	X		Doctoral Candidate	Marketing, Display, and Advertising
5. John Todd	Associate Professor, University of Arkansas	X		X		PhD	Personnel Management
6. Larry D. Coleman	Associate Professor, Home Economics Indiana State University	X		X		PhD	Personal and Family Financial Management
7. Thomas R. McKinnon	Assistant Professor University of Arkansas	X		X		EdD	Business Outlook (Economics)
8. Warren E. Banks	Professor, Finance University of Arkansas	X		X		PhD	Business Financing and Business Financial Planning
9. Jerry Kinnaird	Retail Businessperson	X		X		EdD	Human Relations

(continued on page 6)

Table 2 (continued)

Name	Position	Sex		Race		Highest Degree	Topic
		M	F	W	B		
10. Cynthia Middleton	Law Student		X	X		MEd	Human Relations
11. David Purcell	Employee, State Revenue Department	X		X		B.A.	Taxation
12. Adrain Luttrell	Independent Insurance Agent	X		X		B.A.	Insurance
13. Hilda Turner	Assistant Professor, Office Administration University of Arkansas		X	X		EdD	Paperwork Management

5. Curriculum Guide Writers. Ten vocational technical schools in Arkansas were selected to field test the curriculum units that were to be used in teaching entrepreneurship skills. Vocational instructors in these schools were involved in writing the units as well as trying them out. The writers used the format developed by the Mid-America Vocational Curriculum Center located in Stillwater, Oklahoma. The characteristics of these persons are shown in Table 3.

Table 3: INFORMATION ABOUT THE WRITERS OF THE CURRICULUM UNITS DEVELOPED IN THE BOME PROJECT

Name	Place of Employment	Position	Sex		Race			Curriculum Guide Developed
			M	F	W	B	O	
1. Kathleen Peck	Pulaski Voc. Tech. School	D.E. Teacher		X	X			Business Financing
2. Betty Lawson	Pulaski Voc. Tech. School	Bus. Ed. and Data Processing Inst.		X	X			Business Financial Planning
3. Linda Hartlein	Arkansas Valley Voc. Ed. Tech. School	Business Ed. Teacher		X	X			Paperwork Management
4. Bill Alston	Arkansas Valley Voc. Ed. Tech. School	Voc. Related Inst.	X		X			Paperwork Management
5. Carl Jones	Arkansas Valley Voc. Ed. Tech. School	Electronics Teacher	X		X			Paperwork Management
6. Joy Haynes	Quapaw Voc. Tech. School	Employability and Bus. Education Inst.		X	X			Property Management
7. Betty Haygood	Quapaw Voc. Tech. School	Nursing Instructor		X	X			Property Management
8. Gary Thomas	Quapaw Voc. Tech. School	Offset Printing Instructor	X		X			Property Management
9. David May	White River Voc. Tech. School	Auto Mech. Teacher	X		X			Personnel Management in Small Businesses
10. Margaret Herring	White River Voc. Tech. School	Bus. and Office Ed. Teacher		X	X			Personnel Management in Small Businesses
11. Joyce Crowson	Cotton Boll Voc. Tech. School	Bus. Ed. Teacher		X	X			Financial Records Mgt.
12. Harry Nixon	Cotton Boll Voc. Tech. School	Auto Mech. Teacher	X		X			Financial Records Mgt.

(continued on page 9)

Table 3 (continued)

Name	Place of Employment	Position	Sex		Race			Curriculum Guide Developed
			M	F	W	B	O	
13. Rose Pulliam	Cossatot Voc. Tech. School	Bus. Ed. Teacher		X		X		Insurance
14. Shirley Frachiseur	Cossatot Voc. Tech. School	Bus. Ed. Teacher		X	X			Insurance
15. Doris Van Horn	Twin Lakes Voc. Tech. School	Bus. Ed. Teacher		X	X			Business Outlook
16. Sara Elkins	Twin Lakes Voc. Tech. School	Bus. Ed. Teacher		X	X			Business Outlook
17. Keith Steele	Delta Voc. Tech. School	Director of Ext. Programs	X		X			Personal and Family Financial Management
18. John Stewart	Twin Lakes Voc. Tech. School	Bus. Ed. Teacher	X		X			Modern Marketing for Small Businesses
19. Jean McEntire	Petit Jean Voc.-Tech. School	Bus. Ed. Teacher		X	X			Taxation and Tax Planning
20. Keith Linn	Petit Jean Voc.-Tech. School	Horticulture Instructor	X		X			Taxation and Tax Planning
21. Estella Gorecki	Northwest Voc. Tech. School	Bus. Ed. Teacher		X	X			Human Relations
22. Buck E. Mays	Northwest Voc. Tech. School	Related Instructor	X		X			Human Relations
23. Herb Christner	Northwest Voc. Tech. School	Drafting and Surveying Inst.	X		X			Human Relations

6. Advisory Council. A Statewide Advisory Council was organized to provide input from the business, industrial, and educational community. The advisory council also provides an important function in disseminating information about the project to the community. The following list shows the members on the advisory council and the company or organization they represent.

Table 4: THE ADVISORY COMMITTEE FOR A MODEL FOR VOCATIONAL EDUCATION PROGRAM DEVELOPMENT IN ENTREPRENEURSHIP

1. James Hagler
President, Arkansas Container Corp.
P. O. Box 9650
Little Rock, Arkansas 72209

2. Jerry Baldwin
Air Distribution Products
7909 Mablevale Pike
Little Rock, Arkansas 72209

3. Leonard Kremers
President, Mid-South Applicance Parts Co.
711 16th Street
Little Rock, Arkansas 72203

4. Mr. Glenn Black
Arkansas Retail Merchants Association
660 Prospect Building
1501 N. University
Little Rock, Arkansas 72207

5. Dr. Mary Louise Spencer, Director
Rich Mountain Vocational-Technical School
Post Office Box 69
Mena, Arkansas 71953

6. Mrs. Mae Horn
Horn's Clothing
624 Center Street
Little Rock, Arkansas 72201

7. Mr. Melvin Lawson
5540 Grandview Road
Little Rock, Arkansas 72207

8. Frank Woffard
Management Counseling
Small Business Administration
611 Gaines Street
Little Rock, Arkansas 72201

9. Bill Staed, Vice President
Union National Bank
West Capitol at Louisiana
Little Rock, Arkansas 72202

10. Grady Knight
Coordinator of Program Planning
Vocational Division
Department of Education
Little Rock, Arkansas 72201

11. Glenna Cosgrove
Supervisor, Distributive Educ.
Department of Education
Vocational Division
Little Rock, Arkansas 72201

12. Dr. V. F. McMurray
Chairman of Business and Economics
University of Arkansas, Pine Bluff
Pine Bluff, Arkansas 71601

13. Tommie Butler
Business and Office Supervisor
SEA

7. Project Monitor. Mr. Paul Cunningham of the Arkansas Department of Education was the project monitor. He was the liaison person between the contractor and the subcontractor.

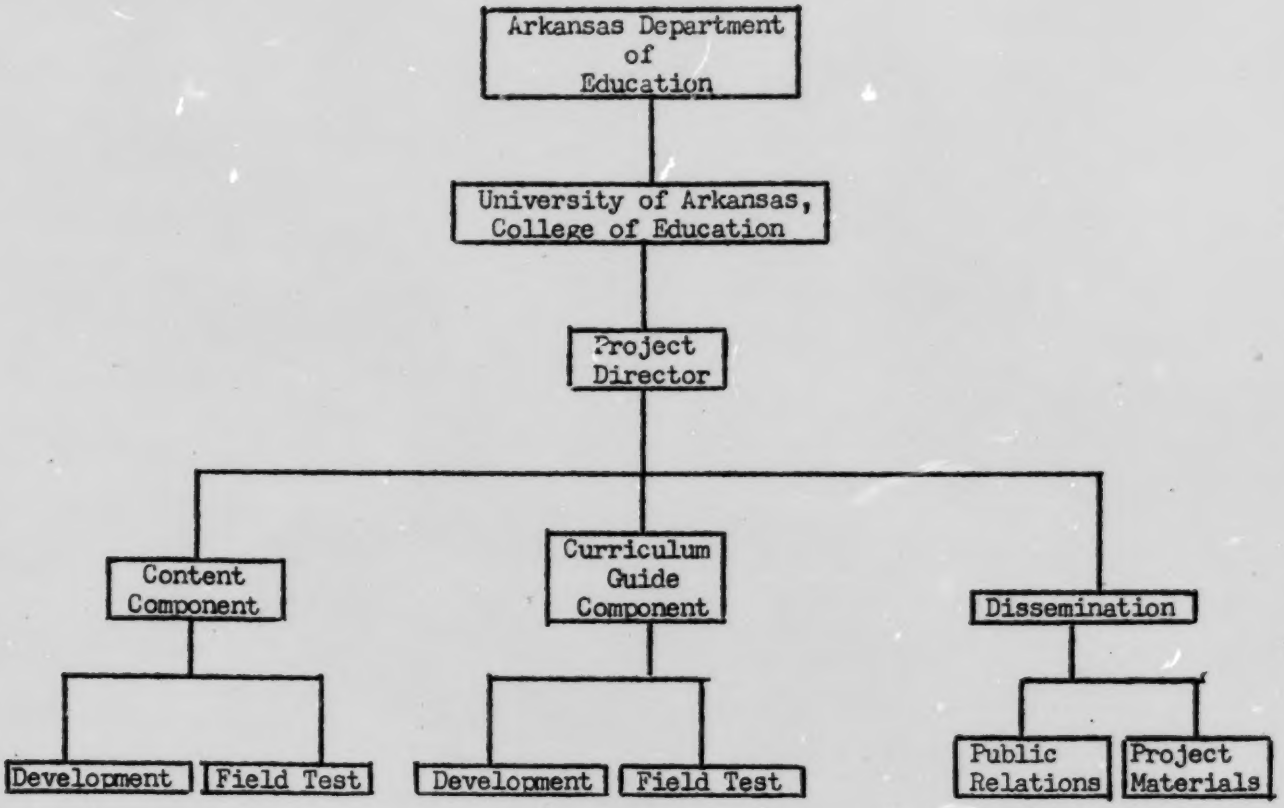
8. Evaluator. The project evaluator was Dr. Dean C. Andrew of Educational Planning and Evaluation Services, a consultant firm domiciled in Magnolia, Arkansas.

B. Instructional or Process Variables

The instructional or process variables for the entrepreneurship project are the organizational structure and the program activities. They are described below.

1. Organizational Structure. The grant was awarded to the Arkansas Department of Education. The State Department of Education contracted with the University of Arkansas, College of Education to conduct the project. In turn the University of Arkansas employed a project director to coordinate all the project activities. The program was organized into three components with various types of activities conducted in each component. The following figure presents the organizational structure of the program.

Figure 1: THE ORGANIZATIONAL STRUCTURE OF THE ENTREPRENEURSHIP PROJECT



2. Program Activities. The program activities consisted of four phases, (a) the development of content manuals by consultants, (b) field testing the content manuals, (c) the development of curriculum guides by vocational technical school personnel, and (d) dissemination activities. A description of each phase follows.

   a. Developing Content Manuals. Business and office occupation instructors from post secondary vocational-technical schools in Arkansas surveyed small business owners and managers to identify the twelve most important topics (areas of business) about which a prospective business owner should have an understanding before going into business. The survey questionnaires were evaluated by business and office occupation instructors and the business teacher educator at the University of Arkansas. The results of the evaluation were used to select twelve tentative topics for content manuals for the instructional curriculums (modules) of the entrepreneurship program.

      The twelve tentatively selected content topics were then discussed with representatives from the Small Business Administration. Topics were researched, and tentative topical outlines were written for the content manual. People with expertise in each of the content areas were employed as consultants to write the content manuals. To assist in teaching or learning the content manuals, audio tapes were prepared for use during field testing.

   b. Field Testing the Manuals. After the content manuals were written, they were field tested in adult education classes in ten pilot site Voc-Tech schools throughout the state. The team members at each site were responsible for coordinating and implementing the entrepreneurial curriculum. All content manuals were field tested.

   c. Developing the Curriculum Guides. Curriculum guides for each of the twelve topics in the content manual were developed by 23 vocational-technical school teachers. Training for developing the curriculum guides was conducted at two 2-day seminars, two one-week summer workshops, and a one-day follow-up workshop. The participants received three hours of vocational credit from the University of Arkansas and reimbursement for travel, meals, and lodging. Participants, locations, dates, and topics of the training activities are shown below.

Date and Location	Who Involved	Topics
January 28-29, 1977 Fayetteville, Ark.	Half of content writers Voc-Tech Personnel MAVCC Consultants Teacher Educators	1st day - Discussed content in draft manuals 2nd day - Learned format for writing curriculum guide
February 11-12, 1977 Jacksonville, Ark.	Other half of content writers Voc-Tech Personnel MAVCC Consultants Teacher Educators	1st day - Discussed content in draft manuals 2nd day - Learned techniques of using curriculum guide in teaching
June 27-July 1, 1977 Springdale, Ark.	Half of Voc-Tech Personnel MAVCC Consultant Teacher Educator	- Review of curriculum guide format -Completed curriculum guide -Critique of guide by teacher educator
July 5-9, 1977	Half of Voc-Tech personnel MAVCC Consultant Teacher Educator	-Review of curriculum guide format -Completed curriculum guide -Critique of guide by teacher educator
March 17, 1978 Fayetteville, Ark.	Voc-Tech Personnel Teacher Educators SEA Coordinator of Area Voc-Tech School	-Critique final produce -Made implementation plans -Distributed manual and guide

d. Dissemination Activities. Dissemination of the entrepreneur program consisted of acquainting the public with the project by way of various media and of distribution of the manual and curriculum guides to potential users. The specific dissemination activities and products are noted below.

(1) Dissemination of Information

(a) Speeches to various groups throughout state about project
(b) Speeches or presentations to professional groups
(c) Advisory Council meetings
(d) Newspaper articles
(e) Professional journal articles
(f) TV and radio presentations
(g) Brochure developed and sent to all Voc-Tech Schools

(2) Dissemination of Products

(a) Developed and field tested in 10 sample schools (voc-tech)
(b) Held meetings with all voc-tech directors who were oriented to the products and received copies of manual and guide
(c) All adult education programs are coordinated through area voc-tech school directors. Thus information about project will be available to every school district in state.
(d) All vocational education supervisory staff will get copies of manuals.
(e) Copies of manuals have been given to advisory council members and thus business community groups have it.

C. Behavioral Variables

Both cognitive and affective behaviors were of concern in the project. The cognitive behaviors are: (1) the ability of the project staff to identify, develop, and implement an entrepreneurship curriculum; to identify sites for staff training; to train teachers to use the curriculum, and to disseminate the curriculum materials to potential users; and (2) the ability of seminar participants to demonstrate knowledge of module contents.

The affective behaviors of concern in the program are the responses of seminar participants to the training activities, the response of potential users to the training materials, and the student and teacher response toward the program.

IV. Planned Evaluation Design

The evaluation plan was designed to answer the questions:

(1) Can relevant curriculum for entrepreneurship be identified, developed, and implemented?

(2) Can a project staff identify pilot sites and develop effective training activities for an entrepreneurship program?

(3) Can teachers be trained to use the instructional modules for entrepreneurship?

(4) To what extent can information about the entrepreneurship program be disseminated to potential users?

The evaluation design summary charts in the appendix show the evaluation plan for the project. A summary chart is developed for each planned program objective and shows the objective, the measuring instruments, and the data collecting procedures.

V. Evaluation Findings

A. Program Outcome Findings

In reporting the evaluation findings of the program outcomes, the objectives will be stated, and then the evaluation information will be presented. This pattern will be followed for each objective.

> Objective 1. The project staff will demonstrate ability to identify, develop and implement relevant curriculum in entrepreneurship as evidenced by instructional modules which complement the MAVCC format and are acceptable to a panel of advisors. It is expected that at least (a) 12 entrepreneurial areas of instruction will be identified, (b) 80 percent of the areas identified will be developed as self-contained instructional modules, and (c) 100 percent of the developed modules will be implemented in one or more appropriate adult training classes.

After surveying small business owners and managers regarding identification of the 12 areas most important to successful business operation, the survey responses were evaluated by business educators and representatives from the Small Business Administration. Their evaluation resulted in the identification and writing of the following twelve entrepreneurial areas of instruction, thus achieving objective 1(a).

1. Business Financing
2. Business Financial Planning
3. Business Outlook
4. Financial Records Management
5. Human Relations
6. Insurance
7. Modern Marketing for Small Business
8. Paperwork Management
9. Personal and Family Financial Management
10. Personnel Management in Small Business
11. Property Management
12. Taxation and Tax Planning

Following identification of entrepreneurial areas, training sessions were held for writing curriculum guides or self-contained instructional modules. Curriculum guides were written for 100 percent of the twelve selected areas, thereby surpassing the 80 percent level expected in Objective 1(b).*

*Copies of the content manuals and the curriculum guides accompany this evaluation report.

The manuals and curriculum guides were field tested in ten pilot site vocational-technical schools and made available to directors of all Arkansas vocational-technical schools, all vocational education supervisory staff, and advisory council members. As a result, the curriculum modules were implemented in a number of Arkansas adult training classes. Schools implementing the modules and the number of students who received training in each area of entrepreneurship are presented in Table 4.

Table 4: A SUMMARY OF IMPLEMENTED CURRICULUM MODULES IN ARKANSAS ADULT TRAINING CLASSES

Module Used	Number of Schools Implementing Module	Average Number of Students Trained in Each Module
Business Financing	2	19
Business Financial Planning	2	28
Business Outlook	2	23
Financial Records Management	6	21
Human Relations	6	33
Insurance	5	28
Modern Marketing	2	32
Paperwork Management	7	26
Personal and Family Finances	3	25
Personnel Management	4	22
Property Management	2	15
Taxation and Tax Planning	5	23

Information presented in Table 4 shows that the twelve curriculum areas, or 100 percent, were implemented in from two to seven vocational technical schools with class sizes averaging 15 to 33 students each. Objective 1(c) was achieved.

Objective 2. The project staff will demonstrate ability to identify participants and conduct effective staff development activities as measured by the evaluation of the training sessions and the extent to which training objectives are achieved. It is expected that at least (a) ten pilot sites will be identified, (b) a team of two instructors will be selected from each site, (c) 75 percent of the training objectives will be achieved, and (d) 80 percent of the seminar participants will respond positively to the training activities.

In carrying out objective 2(a) and (b), the project director called each of the directors at the state's twenty-three post secondary vocational-technical schools and discussed the selection procedures for the pilot test sites. The project director then mailed a packet of materials to each school which included (1) a memo to the director of the school, (2) a letter to the instructors which explained the background and objectives of the program, (3) an outline of the proposed activities, and (4) a questionnaire on which the school's director was to indicate a willingness to participate and to identify potential test team members. Based on the willingness expressed by school personnel to participate in the program and on other information obtained from the questionnaires, ten Arkansas vocational-technical schools were selected to serve as pilot test sites. Two team members from nine of the schools and three team members from one school were selected as test team members or instructors. The schools and personnel chosen to pilot test the entrepreneurship program are shown in the following table and indicate that objective 2(a) and (b) were achieved.

Table 5: THE NAME OF THE PILOT SITES AND THE INSTRUCTORS PARTICIPATING IN THE ENTREPRENEURSHIP PROJECT

Vocational-Technical School	Instructors
1. Arkansas Valley Voc-Tech School Ozark, Arkansas	J. C. Jones, T & I (Electronics) Linda Hartlein, Bus. Educ.
2. Cossatot Voc-Tech School DeQueen, Arkansas	Rose Pulliam, Bus. Educ. Shirley Frachiseur, Bus. Educ.
3. Cotton Boll Voc-Tech School Burdette, Arkansas	Joyce L. Crowson, Bus. Educ. Harry B. Nixon, Auto Mechanic
4. Delta Voc-Tech School Marked Tree, Arkansas	Keith Steele, Direc. of Extension John Stewart
5. Northwest Voc-Tech School Springdale, Arkansas	Estella Gorecki, Office Educ. Buck Mays, Related Instruction Herb Christner, Drafting and Surveying
6. Petit Jean Voc-Tech School Morrilton, Arkansas	Jean McEntire, Office Occup. Keith Linn, Horticulture
7. Pulaski Voc-Tech School North Little Rock, Arkansas	Kathleen Peek, Dist. Educ. Betty Lawson, Bus. Educ.
8. Quapaw Voc-Tech School Hot Springs, Arkansas	Betty Haygood, Nursing Gary W. Thomas, Printing Joy Hanes, Business Educ. and Employability
9. Twin Lakes Voc-Tech School Harrison, Arkansas	Doris Van Horn, Bus. Educ. Sara Elkins, Bus. Educ.
10. White River Voc-Tech School Newport, Arkansas	David May, Auto Mechanics Margaret Herring, Bus. Educ.

Five training sessions were conducted at various times during the course of the project. The first two were seminars in which the instructors at the pilot sites heard explanations of the content manuals from the authors and received instruction on writing and teaching the units of instruction.

Two one-week training sessions were held during the summer with half of the instructors attending each session. Identical training was conducted at each session. The curriculum guide format was reviewed, the curriculum guides were completed by the instructors, and critiqued by the teacher educators who were consultants to the project director.

At the final training session the completed curriculum guides were reviewed, the future of the program was discussed, and copies of the curriculum manuals were distributed for use in the vocational-technical schools. All vocational-technical personnel involved in the project attended as well as the consulting teacher educators, and the SEA coordinator of area vocational technical schools. The dates, location and topics are presented in Table 6.

Table 6: THE TRAINING ACTIVITIES CONDUCTED IN THE ENTREPRENEURSHIP PROJECT

Date of Training	Place of Training	Topics Covered	Number in Attendance
Jan. 28-29, 1977	Fayetteville, Ark.	6 Content Manuals Writing Units of instruction	23
Feb. 11-12, 1977	Jacksonville, Ark.	6 Content Manuals Teaching and supplementing units of instruction	23
June 27-July 1, 1977	Springdale, Ark.	Review of Curriculum Guide format Completed Curriculum Guides Critique of Guides by Teacher educators	14
July 5-9, 1977	Springdale, Ark.	Same as above	9
March 17, 1978	Fayetteville, Ark.	Critique final product Make implementation plans Distribute manuals	23

Objective 2(c) states that 75 percent of the training objectives will be achieved. Training objectives were stated and measured for a portion of the January training session on writing a unit of instruction. Ten instructional objectives were a part of the lesson and a criterion-referenced test followed completion of the training. The expected level of achievement on the test was 85 percent on the unit test. All participants scored at least 85 percent on this test.

Training objectives were not developed for the remaining sessions; therefore, no information is available to measure the extent that objective 2(c) was achieved in those sessions.

A feedback questionnaire was administered to the 23 participants to measure their response to various aspects of the training they received. The responses reflected attitudes toward the first four training sessions. Table 7 presents the statements to which the participants responded and the number and percent making each response.

Table 7: THE RESPONSES OF PARTICIPANTS TO THE TRAINING ACTIVITIES ON A FEEDBACK QUESTIONNAIRE

Statement	From:	Number and Percentage of Responses 5 No.	5 %	4 No.	4 %	3 No.	3 %	2 No.	2 %	1 No.	1 %	To:
1. The seminar training will be:	Very Helpful	11	48	11	48	1	4					Not Helpful
2. The presentations and discussions were:	Very Practical	11	48	8	35	4	17					Too Theoretical
3. The methods used in the seminar were:	Excellent	12	52	7	30	4	18					Poor
4. The organization of the seminar was:	Excellent	17	74	6	26	0	0					Poor
5. The objectives of the seminar were:	Clearly Evident	13	57	10	43	0	0					Vague
6. The ideas and activities presented were:	Very Interesting	12	52	8	35	3	13					Dull
7. The work of the consultant(s) was:	Excellent	10	43	11	48	2	9					Poor
8. The scope (coverage) was:	Very Adequate	6	26	14	61	2	9	1	4			Inadequate
9. Putting the ideas presented into practice would be:	Easy	4	18	10	46	8	36					Difficult
10. Overall, I consider this seminar:	Excellent	15	65	8	35	0	0					Poor
TOTAL	Positive	111	48	93	41	24	11	1	0			Negative

In interpreting feedback questionnaire responses in Table 7, those rated 5 or 4 were considered positive, 3 was considered neutral, and 2 or 1 were considered negative. As can be seen, 89 percent of all responses were rated 5 or 4 indicating a positive response. The questionnaire showed that a 100 percent positive response was obtained to three items, indicating (1) that the organization of the seminar was excellent, (2) the objectives were clearly evident, and (3) overall, the seminars were excellent.

Participants were given the opportunity also to answer open-ended questions regarding favorable and unfavorable aspects of the training. Responses for the most part were highly positive. Several participants praised the excellent organization of the seminars. There was no recurring negative criticism among the responses. Objective 2(c) was achieved beyond the level anticipated.

Objective 3. The project staff will demonstrate ability to develop and implement effective communication techniques to make adults aware of the occupational training opportunities as evidenced by the quantity and type of media utilized and the evaluation results of the materials developed. It is expected that at least (a) three sources of dissemination will be utilized and (b) 75 percent of the materials will receive a positive rating on the evaluation critique.

Dissemination of the entrepreneurship project consisted of activities such as speeches or presentations before various civic and professional groups; articles published in newspapers, magazines, or professional journals; advisory council meetings; television and radio spots and programs; and letters to individuals and groups involved in carrying out the project.

In addition, the content books and curriculum guides developed as a major part of the project were disseminated to pilot test schools, potential users, and to groups and individuals involved in planning and implementing the project.

Also part of the program dissemination was the development, production, and distribution of a promotional brochure to explain the entrepreneurship program offerings and locations of schools in which the courses are taught.

The various media and extent of dissemination carried during the project are shown in Table 8.

Table 8: DISSEMINATION RECORD

Date of Dissemination	Type of Dissemination	Approximate Number of Recipients
	Speeches or Presentations	
9/23-24/76	SAE personnel and University of Arkansas Business Department personnel	3
10/8-9/76	Small Business Administration and Internal Revenue personnel	NA
10/10/76	EPDA Workshop	NA
10/12/76	Voc-Tech School Directors	NA
10/19/76	PBL Chapter, University of Arkansas	NA
11/10/76	NAVCC	NA
11/11-12/76	DPE Convention	NA
12/11/76	EPDA Workshop, Jacksonville	NA
1/10/77	NW Voc-Tech Staff and Faculty	NA
2/1/77	PBL Chapter, Student Survey	NA
4/1/77	Ark. Bus. Ed. Assoc. Conference	50
5/6/77	Bus. Ed. Workshop, Jacksonville	20
5/18/77	Voc. Bus. Instructors, Searcy	20
5/27/77	Voc. Bus. Instructors, Searcy	20
6/20/77	Soc. Schl., Bus. Teachers Workshop	NA
11/11-12/77	EPDA project seminar	NA
12/5/77	National AVA Convention, Atlantic City, NJ	100
3/1/78	Ark. Voc-Tech School Directors	23
	Published Articles	
10/20/76	Newspaper article	Statewide distribution
10/24/76	Newspaper article	NW Arkansas
10/29/76	News magazine article	Distributed by SEA
2/20/77	Newspaper article	Statewide distribution
4/12/77	News magazine article	National distribution
6/28/77	Newspaper article	NW Arkansas
7/77	Professional journal article	State Univ. of N.Y. distribution
11/77	Newspaper article	N.W. Arkansas

Table 8 (continued)

Date of Dissemination	Type of Dissemination	Approximate Number of Recipients
	Advisory Council Meetings	
11/4/76	Presentation	12
3/2/77	Presentation	8
4/27/77	Presentation	5
	Letters	
9/29/76	Advisory Council Members	12
11/1-2/76	Packet of Information — Voc-Tech School Directors	23
11/19/76	Advisory Council Members	12
12/13/76	Directors of Pilot test site Voc-Tech Schools	10
1/5/77	MAVCC Consultants	3
1/19/77	Advisory Council Members	12
1/31/77	MAVCC Consultants	3
2/5/77	Directors, Pilot Test Site Voc-Tech Schools	10
2/15/77	Directors, Pilot Test Site Voc-Tech Schools	10
2/16/77	Advisory Council Members	12
3/5/77	Advisory Council Members	12
3/23/77	Pilot Test Team Instructors	23
4/5/77	Advisory Council Members	12
4/29/77	Pilot Test Team Instructors	23
5/2/77	Advisory Council Members	5
6/6/77	Pilot Test Team Instructors	23
6/8/77	Advisory Council Members	12
7/11/77	Pilot Test Team Instructors	23
11/16/77	Pilot Test Team Instructors	23
3/13/78	Advisory Council Members	12

Table 8 (continued)

Date of Dissemination	Type of Dissemination	Approximate Number of Recipients
	Radio and Television	
7/15/77	Two 30-minute radio programs	Ft. Smith area
	TV presentation, KFPM	Ft. Smith area
9/11/77	TV program, KFSM	Ft. Smith area
11/77	Radio spots announcing EPDA Seminar	
3/78	Series of 60-second TV public information announcements	Ark. Educational TV Network
	30 second TV spots	local stations
3/78	Radio public information announcements personalized for 23 Voc-Tech schools	local radio stations
As completed or at end of project	Distribution of Curriculum Guide	119
	Distribution of Content Book	417
	Recipients: Authors Advisory Committee Members, Teacher Educators, MAVCC personnel, EPDA Project (Secondary Teachers), Vocational Technical Schools, Third Party Evaluator, U. of Ark. libraries, Project Director SEA's	
3/78	Distribution of promotional brochures (2000 available for distribution)	NA

After using the curriculum materials, instructors at the pilot test sites were asked to evaluate the materials and to teach the module. They completed a rating scale on several factors pertaining to the module. A summary of the ratings are presented in Table 9.

Table 9: A SUMMARY OF TEACHERS' RESPONSES ON A RATING SCALE MEASURING ATTITUDES TOWARD CURRICULUM MATERIALS FOR THE ENTREPRENEURSHIP PROGRAM

Module Factor	Ratings on Usability of Materials					
	Excellent		Satisfactory		Unsatisfactory	
	No.	%	No.	%	No.	%
1. Objectives	15	100	8	53		
2. Teacher and student activities	7	47	8	53		
3. Information sheet	12	80	2	13	1	7
4. Transparency masters	4	31	9	69		
5. Assignment sheets	8	53	7	47		
6. Job sheets	4	31	9	69		
7. Unit test	6	40	7	47	2	13
8. Answers to test	9	64	5	36		
9. Total Module	11	73	4	27		
Total	76	59	51	39	3	2

Information in Table 9 shows that Voc-Tech teachers rated over half of the factors "excellent," and another 39 percent were rated "satisfactory." Both of these ratings are considered to indicate a positive response. All who rated the curriculum materials indicated that the objectives were excellent. The information sheet was also rated excellent by a high percentage of the teachers. The data show that Objective 3(b) was achieved.

In addition to completing the rating scale, instructors were given space to comment on the course materials.

Objective 4. The project staff will demonstrate ability to coordinate and implement realistic training experiences in ownership and management as evidenced by the response from appropriate individuals and the number of programs initiated. It is expected that at least (a) 80 percent of the administrators, state staff and teacher educators involved will endorse the program, (b) 70 percent of the adult enrollees will respond favorably, (c) 80 percent of the participating teachers will express a willingness to support the curriculum, and (d) 70 percent of the participating schools will make a commitment to infuse the curriculum into their system the year following the completion of the project.

To measure the achievement of Objective 4(a), supervisors in the vocational-technical department of the Arkansas State Education Agency and teacher educators who are faculty members in Business Department at the University of Arkansas were asked to indicate to what extent they endorsed the Entrepreneurship program. Their responses are shown in Table 10.

Table 10: THE EXTENT THAT THE SEA SUPERVISORS AND TEACHER EDUCATORS INVOLVED IN THE ENTREPRENEURSHIP PROJECT ENDORSE THE PROGRAM

Type of Endorsement	Number and Percent Making Endorsement					
	SEA Supervisors N=7		Teacher Educators N=3		Total N=10	
	No.	%	No.	%	No.	%
1. Unqualified Support	6	86	3	100	9	90
2. Will Support	1	14			1	10
3. Some Support						
4. Only support, if requested						
5. Will not support						

Data in Table 10 shows that all respondents indicated that they would support the entrepreneurship program; 90 percent of their support was unqualified. This level of support exceeds the level anticipated, thus Objective 4(a) was achieved.

To assess student response to the Entrepreneurship program, adults enrolled in the courses where the curriculum modules were used were given a feedback questionnaire on which they could indicate their attitude toward ten aspects of this program. Table 11 presents a summary of the responses of 100 enrollees.

Table 11: THE RESPONSES ON A FEEDBACK QUESTIONNAIRE OF STUDENTS TO VARIOUS INSTRUCTIONAL UNITS TAUGHT IN THE ENTREPRENEURSHIP PROJECT

Statement	From:	Number and Percentage of Responses 5 No.	%	4 No.	%	3 No.	%	2 No.	%	1 No.	%	To:
1. The training I received in this module will be:	Very Helpful	47	43	32	32	20	20	1	1			Not Helpful
2. The presentations and discussions by the teacher were:	Very Practical	43	43	41	41	13	13	2	2			Too Theoretical
3. The methods used by the teacher were:	Excellent	41	41	39	39	20	20					Poor
4. The organization of the instruction was:	Excellent	35	35	40	40	24	24	1	1			Poor
5. The objectives of the module were:	Clearly Evident	39	39	37	37	22	22	2	2			Vague
6. The ideas and activities presented in the module were:	Very Interesting	50	50	32	32	17	17	1	1			Dull
7. The work of the teacher was:	Excellent	49	49	38	38	13	13					Poor
8. The scope (coverage) of the module was:	Very Adequate	39	39	34	34	25	25	1	1			Inadequate
9. Putting the ideas presented in the module into practice would be:	Easy	36	36	36	36	25	25	3	3	1	1	Difficult
10. Overall, I consider the program on Entrepreneurship to be:	Excellent	55	55	34	34	10	10	1	1			Poor
Total		434	43	363	36	189	19	11	1	1	-	

In the interpretation of student responses to the feedback questionnaire, those rated 5 or 4 were considered positive, 3 was considered neutral, and 2 and 1 were considered negative. The data in Table 11 shows that 79 percent of the responses on the 100 questionnaires were positive. The statements receiving the greatest percentage of positive responses related to the excellence of the overall program on Entrepreneurship and the work of the teachers and the practicality of the presentations and discussions. Objective 4(b) exceeded the 70 percent positive response anticipated.

A further measure of the ability of the project staff to coordinate and implement realistic training experience in business ownership and management was the willingness of teachers to support the curriculum. Twenty-one of the 23 test team members completed a questionnaire indicating the extent that they were willing to support the Entrepreneurship program. Their responses are summarized in Table 12.

Table 12: THE EXTENT TEACHERS INVOLVED IN THE ENTREPRENEURSHIP PROJECT ARE WILLING TO SUPPORT THE USE OF THE DEVELOPED INSTRUCTIONAL MODULES

Extent of Support	Number	Percent of Total
1. I would like to teach a module each semester	7	32
2. I will teach a module if students request it	12	54
3. I will teach a module if my administrator requests me to do so.	3	14
4. I would prefer not to use the module	0	0
Total responses indicating support	22	100

There were 22 responses to the questionnaires. One teacher indicated that she would teach the module if the student or administrator requested. The greatest percent of the teachers indicated that they would teach the modules if students requested them. Thirty-two percent said they would like to teach modules; none indicated that they would prefer not to teach the modules. With 100 percent support on the part of the teachers, Objective 4(c) was achieved.

The final measure of the project staff's ability to coordinate and implement a successful Entrepreneurship program was the commitment of the participating schools to infuse the curriculum into their course offerings. The directors of the 23 Vocational-Technical schools in Arkansas were asked to indicate on a questionnaire which

of the 12 curriculum areas they expected to use the following year. Twenty-one of the directors returned the questionnaire. Table 13 presents a summary of their responses.

Table 13: THE EXTENT THAT VARIOUS BUSINESS AND MANAGEMENT INSTRUCTIONAL MODULES WILL BE USED NEXT YEAR IN VARIOUS VOCATIONAL-TECHNICAL SCHOOLS

Name of Module	Vocational Technical Schools Committed to Use Modules	
	No.	%
Personnel Management	19	90
Financial Records Management	18	86
Paper Work Management	16	76
Real Estate	13	62
Business Finance	20	95
Insurance	21	100
Personal and Family Financial Planning	17	81
Taxation and Tax Planning	16	76
Marketing for the Small Business	14	67
Human Relations	21	100
Business Outlook	16	76
Business Communications	19	90

Information presented in Table 13 shows that each of the curriculum modules developed for the Entrepreneurship program will be used by at least 62 percent of the reporting vocational-technical schools in Arkansas during the coming year. Two modules will be used in each of the schools reporting. This response shows that 21 schools, or 91 percent of those in Arkansas, are committed to infusing all or part of the curriculum modules into this system next year, thereby, achieving Objective 4(d).

B. Process Evaluation Findings

Process evaluation is concerned with determining whether project activities are completed as planned, on time, and completed successfully. Many times the program outcomes are not achieved because of ineffective implementation of the program activities. To assess the effectiveness of the project staff to implement and complete program activities as planned, a quarterly report was used. At the

end of each quarter, the project director completed a report on each activity planned for that quarter. The report required the director to list each planned activity and specify if it was completed on time and to document its successful completion. Discrepancies were noted and a brief explanation written. The following tables present each of the quarterly reports. A summary of the major findings are presented in section VI-B.

Quarterly Report
of
Activities

QUARTERLY REPORT

A Model for Vocational Education Program
Development in Entrepreneurship

Period: July 1, 1976 - September 30, 1976 Submitted by: Jim Walden

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
1.2 Letter of notification to new director	July 1, 1976	Sept. 16, 1976	Letter of invitation	Letter of invitation	Funding notification from USOE
1.3 List of committee members	July 20, 1976	Sept. 29, 1976	Letter of invitation	Letter of invitation	Late start due to funding notification and hiring director by affirmative action procedures
1.4 List of topics and project records	August 1, 1976	August 1, 1976	Tentative topical outlines from workshop	Tentative topical outlines from workshop	(subject to director's approval)
1.5 List of writers, assignments and letters of commitments	August 10, 1976	Not yet completed	Consultant contracts		Same as 1.3, plus complications in hiring state employees
1.6 Project records and list of sites	Sept. 1, 1976	Not yet completed	Letter of notification		Same as 1.3
1.7 Records kept by the director	Sept. 30, 1976	Sept. 30, 1976	Quarterly Report	Quarterly Report	
2.1 Letters of announcement and documents of acceptance for pilot sites	Sept. 10, 1976	Not yet completed	Letters of notification		Same as 1.3

Activity	Scheduled Completion Date	Actual Completion Date	Planned Complction Evidence	Actual Completion Evidence	Explanation of Discrepancies
2.2 Project records and letters to team members	Sept. 15, 1976	Not yet completed	Letters of notification		Same as 1.3
4.1 Records kept by director, letters to administrators and tentative plans of action	Sept. 15, 1976	Not yet completed	Letters of notification		Same as 1.3

Second Quarter

QUARTERLY REPORT

A Model for Vocational Education Program
Development in Entrepreneurship

Period: October 1, 1976, through December 31, 1976

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
Completion of Discrepancies From the First Quarter:					
1.5 List of writers, assignments and letters of commitments	Aug. 10, 1976	Oct. 20, 1976	Consultant contracts	Overload assignments, consultant contracts, and appointment forms	Late start due to funding notification and hiring director by affirmative action procedures
1.6 Project records and list of sites	Sept. 1, 1976	Dec. 17, 1976	Letter of notification	Letter of notification	Same as above
2.1 Letters of announcement and documents of acceptance for pilot sites	Sept. 10, 1976	Dec. 17, 1976	Letters of notification	Letters of notification	Same as above
2.2 Project records and letters to team members	Sept. 15, 1976	Nov. 2, 1976	Letters of notification	Letters of notification	Same as above
4.1 Records kept by director, letters to administrators and tentative plans of action	Sept. 15, 1976	Nov. 2, 1976	Letters of notification	Letters of notification	Same as above

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
Activities Scheduled for the Second Quarter:					
1.7 Records kept by the director (developing and testing the curriculum material)	End of the Second Quarter	Jan. 10, 1977	Second Quarterly Report	Second Quarterly Report	
1.8 Evidence of manuals and tapes	Nov. 1, 1976	Not Complete	12 content manuals 12 tapes	4 content manuals 0 tapes	Initial late start due to funding notification and director by affirmative action procedures
2.3 Copy of seminar/conference program	Dec. 1, 1976	Not Complete	Printed Programs	None	Same as above
2.4 Project records in supervisory sites	January--March, 1977	Not Complete	Evaluation Instruments	None	To be completed during the third and fourth quarter
4.2 List of representatives and copy of recommendations	Oct. 15, 1976	Nov. 19, 1976	Second Quarterly Report	Second Quarterly Report	

Third Quarter

QUARTERLY REPORT

A Model for Vocational Education Program
Development in Entrepreneurship

Period: January 1, 1977, through March 31, 1977 Submitted by: Jim Walden

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
Completion of Discrepancies From Previous Quarters:					
1.8 Evidence of Manuals and tapes	Nov. 1, 1976	Not Complete	12 manuals 12 tapes	11 manuals 8 tapes	Initial late start and content author's illness.
2.3 Copy of Seminar/ Conference Program	Dec. 1, 1976	Feb. 12, 1977	Printed program	Printed program	Initial late start.
2.4 Project Records in Supervisory Sites	January-March, 1977	Not Complete	Evaluation Instruments	None	Pilot Testing will be complete during the fourth quarter
Activities Scheduled for the Third Quarter:					
1.7 Project Records	March 31, 1977	March 31, 1977	Third Quarterly Report	Third Quarterly Report	
2.4 Records on Supervisory Visits	March 31, 1977	March 31, 1977	Proposed Pilot Testing Approach	Proposed Pilot Testing Approach	

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Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
3.1 Draft Copy of Calendar of Events	March 31, 1977	March 31, 1977	Fourth Quarter Calendar of Activities	Fourth Quarter Calendar of Activities	
3.2 Copy of News Articles	March 31, 1977	March 31, 1977	Copies of Articles	Copies of Articles	

Fourth Quarter

QUARTERLY REPORT

A Model for Vocational Education Program
Development in Entrepreneurship

Period: April 1, 1977, through June 30, 1977 Submitted by: Jim Walden

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
Completion of Discrepancies From Previous Quarters:					
1.8 Evidence of Manuals and Tapes	Nov. 1, 1976	Apr. 7, 1977	12 manuals 12 tapes	12 manuals 11 tapes	One tape prepared for Finance Planning and Business Financing (a two-part manual)
Activities Scheduled for the Fourth Quarter:					
1.7 Project Records	June 30, 1977	June 30, 1977	Fourth Quarterly Report	Fourth Quarterly Report	
1.10 Results of Pilot Test	June 1, 1977	June 30, 1977	Student Feedback Questionnaire	Student Feedback Questionnaire	Initial late starting date
2.4 Records on Supervisory Visits and Evaluation Results	June 1, 1977	June 30, 1977	Third and Fourth Quarterly Reports	Third and Fourth Quarterly Reports	Initial late starting date

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Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
2.5 Copy of Seminar Programs and List of Teams Attending	June 1, 1977	Jan. 29, Feb. 12, 1977	Seminar Programs and Lists	Seminar Programs Lists	
3.2 Copy of News Articles	April 1, 1977	Previous Quarters	News Articles	News Articles	
3.3 Project Record and Evidence of Media	July 1, 1977	Not Complete	Radio Spots		Materials not available at this time. TV talk shows scheduled during July, 1977
4.3 Record of Conference	July 1, 1977	Nov. 1976	Visit to Curriculum Center	Visit to Curriculum Center	

Fifth Quarter

QUARTERLY REPORT

A Model for Vocational Education Program
Development in Entrepreneurship

Period: July 1, 1977, through September 30, 1977 Submitted by: Jim Walden

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
Activities Scheduled for the Fifth Quarter:					
1.7 Project Records	Sept. 30, 1977	Sept. 30, 1977	Fifth Quarterly Report	Fifth Quarterly Report	
2.6 Memo announcing workshop, workshop program and list of teams participating.	By Aug. 1, 1977	July 9, 1977	12 Curriculum Guides	12 Curriculum Guides	
3.3 Project records and evidence of media	July 1, 1977	Partially Completed	Radio spot Announcements	Radio & TV Coverage	More coverage will be employed during the implementation program
4.3 Dates of Conference and individuals contacted (MAVCC)	July 1, 1977	Nov. 1976	MAVCC Consultants for Seminars and Workshop	MAVCC Consultants	Seminars: Mrs. Ann Benson Workshop: Mr. Mark Taylor Mrs. Regina Decker
4.4 Copy of Edited Modules	Sept. 15, 1977	Sept. 15, 1977	12 Edited Modules	12 Edited Modules	
4.5 Plans of Action	Fall 1977	Partially Completed	Adult Classes & Open Entry/ Open Exit Classes	Plans for Adult Class	Classes cannot be scheduled until materials are returned from printing services

Sixth Quarter

QUARTERLY REPORT

A Model for Vocational Education Program
Development in Entrepreneurship

October 1, 1977, through December 31, 1977

Submitted by: Jim Walden

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
Activities Scheduled for the Sixth Quarter:					
1.7 Project Records	Dec. 31, 1977	Dec. 31, 1977	Quarterly Report	Quarterly Report	
1.11 Evidence of implementation	Dec. 1, 1977	Not Complete	Adult classes		The initial late start of the project altered the schedule and printing delays have caused additional complications.
1.12 Copies of modules and the number produced	Dec. 31, 1977	Not Complete	Printed modules, & project records		"
1.7 List of seminar participants, copy of seminar program and summary of seminar	Dec. 31, 1977	Not Complete	Seminar III Program		"
3.5 Project records and evidence of multi-media	Nov. 15, 1977	Not Complete	Sound slide Series		"
3.6 Brochure	Dec. 31, 1977	Not Complete	Brochure		"

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
4.5 List of classes utilizing the instructional modules	Fall 1977	Not Complete	Project records		Same as page one.
4.6 Instruments to ascertain teachers' and students' response	Nov. 1, 1977	June 1977	Evaluation Instruments	Evaluation Instruments	(Forms will be given to teachers and students after the printed materials are available)
4.7 Commitment document and plans of action	Dec. 31, 1977	Not Complete	Completed survey forms from administrators		(Forms have been prepared, will be given to administrators after the printed materials are available)

Seventh Quarter

QUARTERLY REPORT

A Model for Vocational Education Program
Development in Entrepreneurship

January 1, 1978, through March 31, 1978

Submitted by: Jim Walden

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
OUTSTANDING PROJECT ACTIVITIES COMPLETED DURING THE SEVENTH QUARTER:					
1.7 Project Records	March 31, 1978	March 31, 1978	Quarterly Report	Quarterly Report	
1.11 Evidence of Implementation	Dec. 1, 1977	March 31, 1978	Adult Classes	Administrators' Endorsements and Implementation Plans	The initial late start of project altered the original project schedule
1.12 Copies of modules and the number produced	Dec. 31, 1977	Feb. 1978	Printed Modules and Project Records	500 Content Books 150 Curriculum Guides-Project Records	The initial late start of the project altered the original project schedule
2.7 List of Seminar Participants, Copy of Seminar Program and Summary of Seminar	Dec. 31, 1977	March 17, 1978	Seminar III Program	Seminar III Program	The initial late start of the project altered the original project schedule
3.5 Project Records and Evidence of Multi-Media Presentation	Nov. 15, 1977	Summer 1979	Sound Slide Series for Each Voc-Tech School		The Media Implementation Center L.R., has scheduled this presentation's development for coming year.
3.6 Brochures	Dec. 31, 1977	March 1978	Brochure	Brochure	Initial late start

Activity	Scheduled Completion Date	Actual Completion Date	Planned Completion Evidence	Actual Completion Evidence	Explanation of Discrepancies
4.5 List of Classes Utilizing the Instructional Modules	Fall 1977	March 31, 1978	Project Records	Administrators' Endorsements and Implementation Plans	Initial late start
4.7 Commitment Document and Plans of Action	Dec. 31, 1977	March 31, 1978	Completed Survey Forms from Administrators	Completed Survey Forms from Administrators	Initial late start

VI. Summary of Findings, Conclusions, and Recommendations

A. Summary of Program Outcome Findings

Table 14 summarizes the results of the evaluation. Information is presented for each objective and includes the measuring instrument, expected performance level, target population, results, and whether the objective was achieved.

Table 14: SUMMARY OF EVALUATION RESULTS

Objective	Measuring Instrument	Expected Performance Level	Target Population	Results	Objective Achieved Yes	Objective Achieved No
1a	Printed modules	Identify 12 areas	NA	12 areas	X	
b	Rating scale	80 percent of identified areas developed	NA	100 percent	X	
c	Implementation Record	100 percent implemented	NA	100 percent	X	
2a	Letter of Agreement	10 sites identified	NA	10 sites	X	
b	Published roster of instructors	2 teams per site selected	NA	2 or 3 per site	X	
c	Criterion Referenced Test	75 percent of objectives achieved	Participating Voc-Tech teachers	Objectives achieved in part of one training session	partially	
d	Feedback Questionnaire	80 percent positive response	Participating Voc-Tech teachers	89 percent positive	X	
3a	Dissemination Record	3 sources of dissemination		10	X	
b	Rating Scale	75 percent positive ratings	23 test team members	98 percent positive ratings	X	

Table 14 (continued)

Objective	Measuring Instrument	Expected Performance Level	Target Population	Results	Objective Achieved Yes	Objective Achieved No
4a	Implementation record and Feedback Questionnaire	Endorsement by 80 percent of respondents	SEA Supervisors, teacher educators	100 percent endorsement	X	
b	Feedback Questionnaire	70 percent positive response	Enrollees	79 percent positive response	X	
c	Feedback Questionnaire	80 percent support	Participating teachers	100 percent support	X	
d	Feedback Questionnaire	70 percent of schools committed	23 Voc-Tech School Directors	91 percent commitment	X	

B. Summary of Process Evaluation Findings

The following statements note discrepancies between planned and actual project activities and the reason for such discrepancies.

1. Most of the project implementation activities were late in being completed because the funding notification from USOE was late and because the application of affirmative action hiring procedures required a longer time to employ a director than anticipated.

2. Delays in printing materials delayed the scheduling of classes in which the instructional modules were to be field tested.

3. Some of the evaluation forms were not collected on time because they were to be administered after printed instructional modules were used.

C. Conclusions

The evaluation findings suggest the following conclusions:

1. The overall goal of developing individual instructional modules for use in teaching skills in entrepreneurship was very successfully achieved.

2. Project activities verified the assumption that business leaders, higher education officials, and educators could cooperatively work together in producing instructional materials that fulfilled an identified need.

3. Individual instructional modules were produced to teach the various entrepreneurship skills and such modules received wide acceptance among the personnel concerned with adult education.

4. The wide acceptance of the instructional modules by SEA supervisors and by the Vocational Educators involved in adult education suggest that the modules should be disseminated to appropriate educators and business groups throughout the state.

5. All of the training workshops did not have written planned objectives and measures of effectiveness. While this lack did not affect project outcomes of this program, it often does with other programs.

6. Fortunately the delay in funding this program did not affect the outcomes of the program, but it did require the project director to always be in a catch-up situation.

D. Recommendations

1. It is recommended that every effort be made to disseminate the materials throughout the state to educators involved with adult education. Educators should be assisted in disseminating information about the instructional modules to the public.

2. Continuous feedback should be obtained from users of the materials so that they may be refined and improved.

3. USOE should make every effort to notify project grantees of funding in time for them to follow the expected timelines.

4. Since project activities have been well documented, it is recommended that the process model of this project be considered for use in other projects where educators and business personnel are working together on a program to fulfill an identified need.

5. It is recommended that project directors be given assistance or help in planning workshops whereby objectives, activities, and evaluation plans can be developed.

Appendix

Evaluation Design

Summary Charts

Vocational Education Curriculum Project in Entrepreneurship
EVALUATION DESIGN SUMMARY CHART

PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
1. The project staff will demonstrate ability to identify, develop and implement relevant curriculum in entreprencurship as evidenced by instructional modules which complement the Mid-America Vocational Curriculum Consortium format and are acceptable to a panel of advisors. It is expected that at least (a) 12 entrepreneurial areas of instruction will be identified, (b) 80 percent of the areas identified will be developed as self-contained instructional modules, and (c) 100 percent of the developed modules will be implemented in one or more appropriate adult training classes.	a. Printed modules	at time module is completed	module content will follow format of Mid-America Vocational Curriculum Corsortium	N/A	9-1-77	Project Director
	b. rating scale	already available	Information will be collected on acceptability of module and whether it is a self contained instructional module	Three staff members of Mid-America Vocational Curriculum Consortium	10-1-77	Project Director
	c. Implementation record	already available	-Name of module -Place of implementation -Number of adults using module	Directors of vocational technical schools	Submitted in quarterly reports	Project Director

EVALUATION DESIGN SUMMARY CHART

PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
2. The project staff will demonstrate ability to identify participants and conduct effective staff development activities as measured by the evaluation of the training sessions and the extent to which training objectives are achieved. It is expected that at least (a) ten pilot sites will be identified, (b) a team of two instructors will be selected from each site, (c) 75 percent of the training objectives will be achieved, and (d) 80 percent of the seminar participants will respond positively to the training activities.	a. Letter of agreement	at time vocational-technical school agrees to be a pilot site	statement that school will be pilot site	Post secondary vocational and technical schools throughout Arkansas	1-1-77	Project Director
	b. published roster of instructions	1-1-77	Information will be obtained showing name of instructors and name of school in which instructor works	N/A	1-1-77	Project Director
	c. Criterion Referenced Test developed by Mid-America Vocational Curriculum Consortium	already available	Knowledge of Module Contents will be collected	Seminar Participants	7-10-77	Project Director
	d. Feedback Questionnaire	already available	Positive and negative attitudes toward training activities	Seminar participants	7-15-77	Project Director

EVALUATION DESIGN SUMMARY CHART

PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
3. The project staff will demonstrate ability to develop and implement effective communication techniques to make adults aware of the occupational training opportunities as evidenced by the quantity and type of media utilized and the evaluation results of the materials developed. It is expected that at least (a) three sources of dissemination will be utilized and (b) 75 percent of the materials will receive a positive rating on the evaluation critique.	a. Dissemination record	Form already available	Information on: --Date of dissemination --Type of dissemination --Approximate number in receiving audience	N/A	submitted quarterly	Project Director
	b. rating scale	already available	Information will be collected on the acceptability of the materials	Potential users of the materials	submitted quarterly	Project Director

EVALUATION DESIGN SUMMARY CHART

PERFORMANCE OBJECTIVE	MEASUREMENT INSTRUMENTS			DATA COLLECTION PROCEDURES		
	Name/Type of Instrument	Date Instrument to be Completed	Baseline Data	Target Group	Scheduled Date(s)	Person Responsible
4. The project staff will demonstrate ability to coordinate and implement realistic training experiences in ownership and management as evidenced by the response from appropriate individuals and the number of programs initiated. It is expected that at least (a) 80 percent of the administrators, state staff and teacher educators involved will endorse the program, (b) 70 percent of the adult enrollees will respond favorably, (c) 80 percent of the participating teachers will express a willingness to support the curriculum, and (d) 70 percent of the participating schools will make a commitment to infuse the curriculum into their system the year following the completion of the project.	a. Implementation record	already available	name of module, place of implementing, and number of adults using module	administrators of vocational-technical schools	submitted in quarterly reports	Project Director
	Endorsement form	already available	information on whether supervisors and teacher educators would recommend use of modules	selected SEA vocational supervisors and University of Ark. consultants	12-30-77	Project Director
	b. Feedback Questionnaire	already available	Positive and negative responses toward program	adult students in program	Throughout year and submitted quarterly	Project Director
	c. Support Form	already available	Percent of teachers supporting curriculum	Teachers using modules	Collected throughout year but submitted quarterly	Project Director
	d. 1977-78 List of Curriculum or Adult Education Offerings	already available	Curriculum programs being offered by school	Ten Pilot Post Secondary V Voc-Tech Schools program	12-30-77 in	Project Director